

PASQUE Simona (Italy)

Prototypes for interactive fashion wearables – visual presentation

This presentation focus on the design results of a research on the collision between fashion and wearable technologies I carried out at Interaction Design Institute Ivrea, Italy.

The scope of my research is to explore the potential of digital interactivity as means of personal expression rather than purely as a means of functionality. This involves looking at interactive behavior not in terms of utility, but imagination and projection of identity: the ultimate "utility" of fashion.

This is part of continuing research to understand how digital technology might change the experience of wearing garments by enhancing the sensorial aspects of textiles or accessories (embedding sound, light, etc.)

The first prototype, called Flightdream, it's an evening cape that gives the sensation of flight to the wearer and the expression of flight to the onlooker. The garment gives the wearer the sensation of euphoria, buoyancy and altitude through a combination of sound, motion, and pressure. Onlookers also share in the sensation as the style and sound alter the perception of space surrounding the wearer. The



sound of air rushing at a high altitude is mapped to the movement of the fabric through piezoceramic sensors. When the wearer moves, the construction of the cape resists and gives a sense of buoyancy. The subtle sound of the fabric matches the physical properties of the fabric, but not the room's acoustics, giving it a surreal (non-diegetic) quality. (More details can be found on the website at <http://www.flightdream.org>)

The second and third prototypes explore how accessories like shoes can be augmented to enable an elegant transformation and a sense of empowerment in the wearer.

The concept for the first working prototype, Electric Cinderella, draws from the myth of Cinderella. It's a pair of elegant sexy shoes with a crystal toe but with a new power inside: a stun gun. A shielded, potential weapon, meant to be used only once, as the wearer has to break the glass to use it. The prototype is Plexiglas shoe. Inside the heel is hidden the circuit board of a stun gun and a 9 volts battery. An earring activates the electric spark.

(To learn more and watch a movie scenario:
http://www.flightdream.org/simona/electric_scenario.html)



The concept for the second working prototype, The Beauty and the Beast, draws from the myth of Catwoman. It's a pair of elegant shoes that disguises an expected feature: when clicking on the heel a whiplash sound rings out. The prototype is Plexiglas shoe. Hidden in the heel, an FSR sensor able to detect the stamp of the foot, a micro controller connected

to a sound chip, a loudspeaker, two 9 volts batteries able to power the circuit through a switch placed on the side of the heel.

(To learn more and watch the movie:
http://www.flightdream.org/simona/thebeauty_scenario.html)

Simona Brusa Pasque' is an interaction designer and recent masters graduate from Interaction Design Institute Ivrea. Her most recent area of focus has been the design of wearable computing. Her research interest is the evolution of digital genres and the design of wearable and portable technologies.

Institutional affiliation: Interaction Design Institute Ivrea
